LWG
LOWER WILLAMETTE GROUP

Co-Chairperson: Jim McKenna, Port of Portland
Co-Chairperson: Bob Wyatt, NW Natural
Treasurer: Fred Wolf, Arkema

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Chip Humphrey
Project Manager
U.S. Environmental Protection Agency
811 SW Sixth Avenue, 3rd Floor
Portland, OR 97204

Eric Blischke
US EPA
811 SW 6th Avenue, 3rd Floor
Portland, OR 97204

Re: Portland Harbor Superfund Site; Administrative Order on Consent for Remedial Investigation and Feasibility Study; Docket No. CERCLA-10-2001-0240. Round 3 Sampling for Lamprey (*Lampetra* sp.) Ammocoete Tissue.

Dear Chip and Eric:

The lamprey ammocoete tissue collection in the Willamette River has been completed and the next step is to decide the analytical approach of the tissue samples. At the end of the four week field sampling effort the estimated weights of ammocoetes were 71.8 g in the Study Area and 98.3 g upstream (RM 16.5-18.7) (Table 1). In addition, 3 g were collected at the downtown upstream location (RM 11-11.7). Several lamprey macrothalmia were collected during the effort including approximately 44.4 g from the Study Area, 29 g upstream, and 3.2 g at the downtown upstream location. Based on these weight estimates LWG would like to propose the following analytical approach. The analysis of all chemicals listed in the FSP and QAPP requires a minimum of 30 g.

Combine the ammocoetes collected in the Study Area into two samples, a downstream and upstream sample i.e., combining all ammocoetes collected at stations LT001 through LT008 (RM 2-5) into one sample with an estimated weight of 37.1 g and combining the remaining ammocoetes collected at stations LT009 through LT021 (RM 5- 11) into another sample with an estimated weight of 34.7 g. The upstream tissue samples can be analyzed at the locations they were collected. One sample with an estimated weight of 33.6 g from Sellwood Bridge and one sample and a field duplicate sample from Elk Rock Island (splitting the mass of 64.7 into two samples of 32.4 g). The 3 g collected just

upstream of the Study Area will not be analyzed because it is not sufficient mass to be analyzed on its own. Sufficient mass of macrothalmia (44.4 g) was collected in the Study Area to create one sample by combining all 11 organisms. An estimated total of 29 g was collected at the two upstream locations which is less than the minimum 30 g required. Based on the ranking in the FSP and QAPP mercury is the first analysis to be excluded. The analysis requires 2 g which would decrease the total required to 28 g. Similarly, the tissue from the downtown upstream location (3.2 g) will not be analyzed.

LWG is looking forward to discuss the analytical approach of the lamprey ammocoetes tissue samples with EPA.

Very truly yours,

Jim McKenna
LWG Co-Chair

Bob Wyatt
LWG Co-Chair

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Table 1 Summary of ammocoete and macrophalmia collected in Portland Harbor

Area/Sample ID	River Mile (description)	# Drops	# Shock/Drop	Ammocoete Mass (g)	# Ammocoetes	Macrophalmia Mass (g)	# Macrophalmia
ISA							
LW3-LT001	2.0 (OSM)	30	1	10.3	4	0.0	0
		16	4	14.3	11	8.3	2
LW3-LT002	2.5 (south bank)	38	1	11.2	7	0.0	0
LW3-LT003	3.0 (Multnomah Channel)	30	1	0.0	0	0.0	0
LW3-LT004	3.2 (near Time Oil)	19	1	0.0	0	0.0	0
LW3-LT005	3.7 (Schnitzer)	30	1	0.0	0	0.0	0
LW3-LT006	4.3 (Slip1, Terminal 4)	30	1	1.3	1	0.0	0
		10	4	0.0	0	0.0	0
LW3-LT007	4.8 (Terminal 4)	30	1	0.0	0	0.0	0
LW3-LT008	4.8 (near Linton Plywood)	30	1	0.0	0	0.0	0
LW3-LT009	5.7 (Cathedral Park)	30	1	2.5	1	0.0	0
		20	4	2.2	2	0.0	0
LW3-LT010	6.2 (US moorings)	30	1	0.5	1	0.0	0
		18	4	0.0	0	7.9	2
LW3-LT011	6.7 (Willamette Cove)	30	1	0.0	0	0.0	0
LW3-LT012	6.8 (railroad bridge at Arkema)	30	1	0.0	0	0.0	0
LW3-LT013	7.3 (Arkema docks)	30	1	0.0	0	0.0	0
		1	4	0.0	0	0.0	0
LW3-LT014	7.4 (Reidell Cove, Triangle Park)	30	1	0.0	0	0.0	0
		10	4	0.0	0	0.0	0
LW3-LT015	7.7 (Salzman Creek, Willbridge)	30	1	0.0	0	0.0	0
LW3-LT016	8.2 (near Portland shipyard)	30	1	0.0	0	0.0	0
LW3-LT017	8.5 (Swan Island Lagoon)	10	1	0.0	0	0.0	0
LW3-LT018	8.8 (upstream of P'land shipyard)	30	1	5.8	2	0.0	0
		25	4	6.0	5	8.8	2
LW3-LT019	8.7 (Shaver, near Gunderson)	30	1	0.0	0	0.0	0

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LW3-LT020	9.7 (fireboat cove)	30	1	0.2	1	0.0	0
LW3-LT021	10.0 (Goldendale Aluminum)	30	1	1.0	2	0.0	0
		20	4	16.5	14	19.4	5
Total ISA		***727***		***71.8***	***51***	***44.4***	***11***
Upstream							
LW3-LT022	11-11.7	30	1	3.0	3	3.2	1
LW3-LT023a	15.5 (Ross Island)	4	1	0.0	0	0.0	0
LW3-LT023b	16.5-17 (Sellwood Bridge)	100	1	33.6	49	0.0	0
LW3-LT023c	18.7 (Elk Rock Island)	37	4	64.7	44	29.0	9
Total Upstream		***171***		***101.3***	***96***	***32.2***	***10***